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Type: Motivation letter

Degree: Bachelor

Major: Biology

University: Northwestern University

A shelf full of DVDs with science documentaries. That is what my favorite corner of the room looked like when I was a child. But there was one documentary that shocked me the most (so much that I watched it 50 times): Mold. Picture an abandoned planet Earth, corroding bridges and buildings, and snapshots of magnificent, elegant, but dangerous mold devouring the leftovers of civilization. It seemed like mold was everywhere: in food, in canalizations, in the bathroom, and even on the pages of old books. I could not imagine those peculiar organisms thriving around me.

Later, I went to a microbiology healthcare workshop where everyday hygiene and bacteria cultivation methods were discussed. It was the first time I saw real lab equipment and could make a petri dish with my fingerprints. After three days, microorganisms assembled into colorful colonies and grew so much that there was no space left. Bacteria were fascinating, but at the same time odd and frightening. I left the dish on my shelf as a reminder to wash my hands properly.

Remembering the scenes from the documentary, I decided to study the effect of the phytoncide concentration of plantains on the growth of yeast for the IB Biology Internal Assessment. Since many bacteria are becoming resistant to known antibiotics, the death rate from drug-resistant microorganisms is increasing. Thus, antimicrobial agents sourced from plants and animals are receiving growing attention from pharmacologists. Carefully studying the unusual sources of necessary chemicals could help find new substances against microbial diseases, and I would love to push this investigation forward.

Being a place where bright scientists share their findings with an aim to solve global problems, I am roused to become a part of the community at Northwestern University. With a concentration in “Ecology, Evolution & Conservation Biology”, I can learn about the interrelations between people and nature, specifically how human vitality affects the environment and what methods sustain ecological communities. Wastewater phytoremediation is just one of the topics that deeply grab my interest — this problem correlates with the habitat in my hometown, where the river is contaminated with waste and pesticides. The water is either cleaned poorly or not cleaned at all, which affects the ecological and aesthetic aspects of the river. By studying plants with a high bioaccumulative potential like duckweeds, I could come up with new bio-filters and ultimately integrate this new technology to create a sustainable environment. Moreover, enrolling in the Field Ecology course would open a door to experimental research that is essential for optimizing existing phytoremediation techniques and verifying new ones.

That being said, the Northwestern experience remarkably steps out of basic academics, with the sports sections fascinating me the most — outstanding athletes, mascots, cheerleaders, and the proud cries of Wildcats during tournaments call for a uniquely collective student experience. Moreover, I was thrilled to discover that your institution offers sailing and climbing — two activities that I cannot live without! Sailing evokes my memories from childhood, while climbing challenges my mind and body in every way possible. What is more, the welcoming and culturally rich spirit of hustling Chicago, together with calm and congenial Evanston, inspires me to explore the history of Illinois — I am eager to walk the coast and explore hidden places in and out, lovingly spending time near the water.

All in all, I am confident that joining the vibrant students and lecturers at the heart of Northwestern University would push me to become a well-rounded biologist who finds unexpected solutions and implements them across the globe.